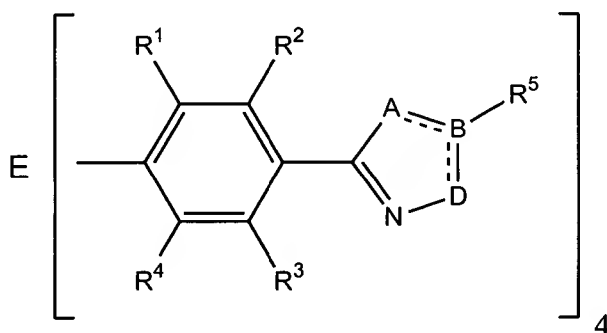


Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of the following formula:



wherein

each of R<sup>1</sup>-R<sup>4</sup> is, independently, H, substituted or unsubstituted C<sub>1-6</sub> alkyl, OH, C<sub>1-6</sub> alkoxy, N(R<sup>6</sup>)(R<sup>7</sup>), in which each of R<sup>6</sup> and R<sup>7</sup> is, independently, H or substituted or unsubstituted C<sub>1-6</sub> alkyl, NO<sub>2</sub>, CN, or CO<sub>2</sub>R<sup>8</sup>, in which R<sup>8</sup> is H or C<sub>1-6</sub> alkyl; and

wherein R<sup>5</sup> is H, substituted or unsubstituted C<sub>1-6</sub> alkyl, substituted or unsubstituted C<sub>2-6</sub> alkenyl, substituted or unsubstituted C<sub>2-6</sub> alkynyl, ~~substituted or unsubstituted C<sub>6-20</sub> aryl or C<sub>6-20</sub> aryl substituted with OH, C<sub>1-6</sub> alkoxy, N(R<sup>26</sup>)(R<sup>27</sup>), substituted or unsubstituted alkylaryl in which the alkyl moiety is one or more substituted C<sub>1-6</sub> alkyl groups, substituted or unsubstituted C<sub>4-20</sub> heteroaryl, C<sub>10-20</sub> diarylaminoaryl, or is absent, or B and D, together with R<sup>5</sup> and R<sup>11</sup>, are substituted or unsubstituted aryl; in which each of R<sup>26</sup> and R<sup>27</sup> is, independently, H, substituted or unsubstituted C<sub>1-6</sub> alkyl, substituted or unsubstituted aryl, substituted or unsubstituted alkylaryl, NO<sub>2</sub>, CN, or CO<sub>2</sub>R<sup>28</sup>, in which R<sup>28</sup> is H or C<sub>1-6</sub> alkyl;~~

wherein A is O, S, N(R<sup>9</sup>) in which R<sup>9</sup> is absent, H, substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, N=N, or N=C(R<sup>10</sup>) in which the C is adjacent to B and in which R<sup>10</sup> is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl;

wherein B is C or N;

wherein D is N, NH, or C(R<sup>11</sup>) in which R<sup>11</sup> is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, or B and D, together with R<sup>5</sup> and R<sup>11</sup> are substituted or unsubstituted aryl;

and wherein E is C or Si;

provided that when A is O and D is N, then B is C and the floating double bond is between B and D;

further provided that when A is N(R<sup>9</sup>) and R<sup>9</sup> is absent, then B is N, R<sup>5</sup> is absent, D is NH, and the floating double bond is between A and B;

further provided that when A is N=N, then B is C, D is N, and the floating double bond is between B and D;

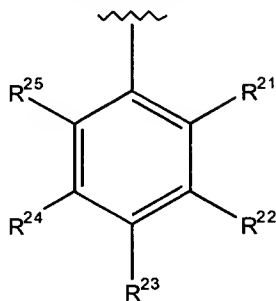
further provided that when A is N=C(R<sup>10</sup>), then B is N, R<sup>5</sup> is absent, D is C(R<sup>11</sup>), and the floating double bond is between B and D;

further provided that when A is N(R<sup>9</sup>) and R<sup>9</sup> is H, alkyl, or aryl, then B is C, D is C(R<sup>11</sup>), and the floating double bond is between B and D;

further provided that when A is O or S and D is C(R<sup>11</sup>), then B is C and the floating double bond is between B and D.

2. (Original) The compound of claim 1, wherein A is O.
3. (Original) The compound of claim 2, wherein each of R<sup>1</sup>-R<sup>4</sup> is H.
4. (Currently Amended) The compound of claim 2, wherein R<sup>5</sup> is ~~substituted or unsubstituted aryl, or substituted or unsubstituted alkylaryl; unsubstituted C<sub>6-20</sub> aryl or C<sub>6-20</sub> aryl substituted with OH, C<sub>1-6</sub> alkoxy, N(R<sup>26</sup>)(R<sup>27</sup>), or alkylaryl in which the alkyl moiety is one or more substituted C<sub>1-6</sub> alkyl groups; in which each of R<sup>26</sup> and R<sup>27</sup> is, independently, H, substituted or unsubstituted C<sub>1-6</sub> alkyl, substituted or unsubstituted aryl, substituted or unsubstituted alkylaryl, NO<sub>2</sub>, CN, or CO<sub>2</sub>R<sup>28</sup>, in which R<sup>28</sup> is H or C<sub>1-6</sub> alkyl.~~

5. (Original) The compound of claim 4, wherein  $R^5$  has the following formula:



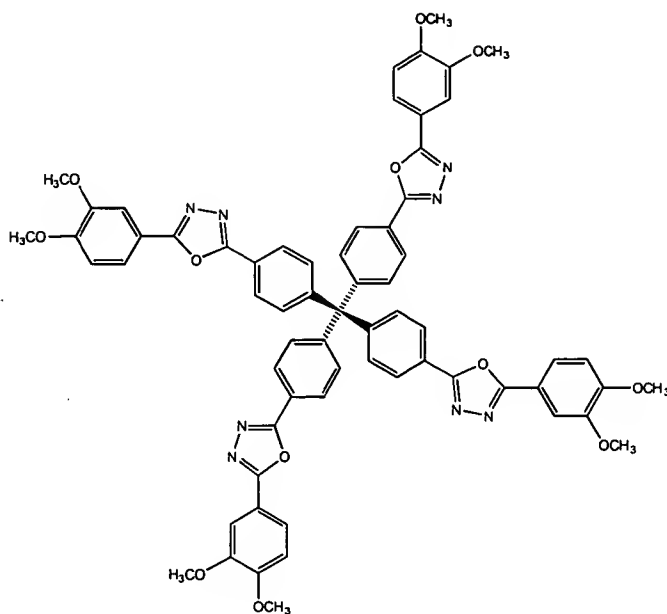
wherein each of  $R^{21}$ - $R^{25}$  is, independently, H, substituted or unsubstituted  $C_{1-6}$  alkyl, OH,  $C_{1-6}$  alkoxy,  $N(R^{26})(R^{27})$ , in which each of  $R^{26}$  and  $R^{27}$  is, independently, H, substituted or unsubstituted  $C_{1-6}$  alkyl, substituted or unsubstituted aryl, substituted or unsubstituted alkylaryl,  $NO_2$ , CN, or  $CO_2R^{28}$ , in which  $R^{28}$  is H or  $C_{1-6}$  alkyl.

6. (Original) The compound of claim 5, wherein each of  $R^{21}$ - $R^{25}$  is, independently, H or methoxy.

7. (Original) The compound of claim 5, wherein each of  $R^{21}$ - $R^{25}$  is, independently, H or tert-butyl.

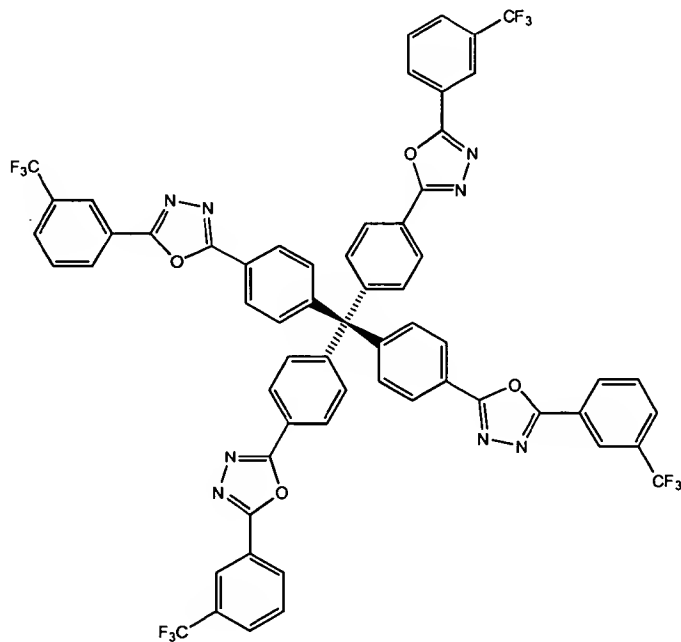
8. (Original) The compound of claim 5, wherein each of  $R^{21}$ - $R^{25}$  is, independently, H or trifluoromethyl.

9. (Original) The compound of claim 1, wherein the compound has the following formula:



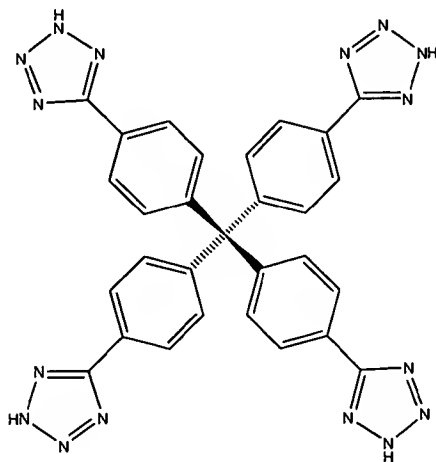
10. (Canceled)

11. (Original) The compound of claim 1, wherein the compound has the following formula:

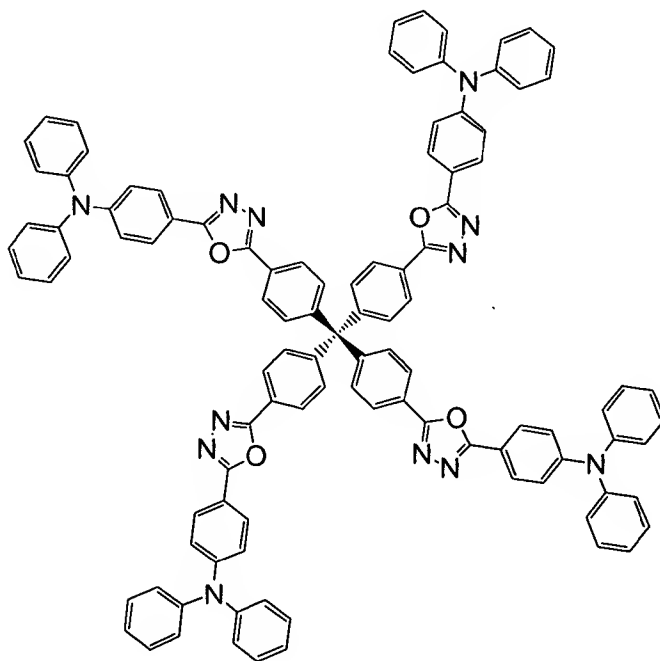


12. (Original) The compound of claim 1, wherein A is  $N(R^9)$ , in which  $R^9$  is absent.

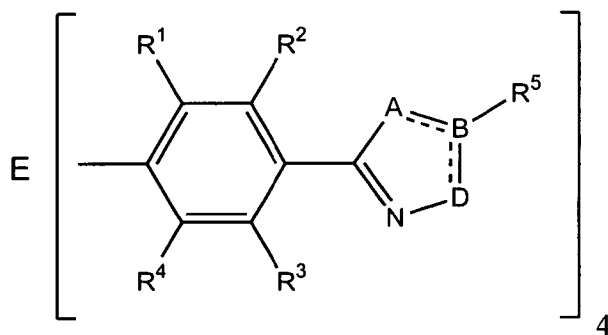
13. (Original) The compound of claim 12, wherein the compound has the following formula:



14. (Original) The compound of claim 1, wherein the compound has the following formula:



15. (Currently Amended) An electroluminescence device comprising a substrate, a hole transporting layer, ~~and an~~ emitting layer, and an electron transporting layer, wherein at least one of the hole transporting layer, the emitting layer, and the electron transporting layer comprises a compound having the following formula:



wherein

each of  $R^1$ - $R^4$  is, independently, H, substituted or unsubstituted  $C_{1-6}$  alkyl, OH,  $C_{1-6}$  alkoxy,  $N(R^6)(R^7)$ , in which each of  $R^6$  and  $R^7$  is, independently, H or substituted or unsubstituted  $C_{1-6}$  alkyl,  $NO_2$ , CN, or  $CO_2R^8$ , in which  $R^8$  is H or  $C_{1-6}$  alkyl; and

wherein  $R^5$  is H, substituted or unsubstituted  $C_{1-6}$  alkyl, substituted or unsubstituted  $C_{2-6}$  alkenyl, substituted or unsubstituted  $C_{2-6}$  alkynyl, ~~substituted or unsubstituted  $C_{6-20}$  aryl or  $C_{6-20}$  aryl substituted with OH,  $C_{1-6}$  alkoxy,  $N(R^{26})(R^{27})$ , substituted or unsubstituted alkylaryl in which the alkyl moiety is one or more substituted  $C_{1-6}$  alkyl groups,~~ substituted or unsubstituted  $C_{4-20}$  heteroaryl,  $C_{10-20}$  diarylaminoaryl, or is absent, or B and D, together with  $R^5$  and  $R^{11}$ , are substituted or unsubstituted aryl; in which each of  $R^{26}$  and  $R^{27}$  is, independently, H, substituted or unsubstituted  $C_{1-6}$  alkyl, substituted or unsubstituted aryl, substituted or unsubstituted alkylaryl,  $NO_2$ , CN, or  $CO_2R^{28}$ , in which  $R^{28}$  is H or  $C_{1-6}$  alkyl;

wherein A is O, S,  $N(R^9)$  in which  $R^9$  is absent, H, substituted or unsubstituted alkyl, or substituted or unsubstituted aryl,  $N=N$ , or  $N=C(R^{10})$  in which the C is adjacent to B and in which  $R^{10}$  is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl;

wherein B is C or N;

wherein D is N, NH, or  $C(R^{11})$  in which  $R^{11}$  is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, or B and D, together with  $R^5$  and  $R^{11}$  are substituted or unsubstituted aryl;

and wherein E is C or Si;

provided that when A is O and D is N, then B is C and the floating double bond is between B and D;

further provided that when A is  $N(R^9)$  and  $R^9$  is absent, then B is N,  $R^5$  is absent, D is NH, and the floating double bond is between A and B;

further provided that when A is  $N=N$ , then B is C, D is N, and the floating double bond is between B and D;

further provided that when A is  $N=C(R^{10})$ , then B is N,  $R^5$  is absent, D is  $C(R^{11})$ , and the floating double bond is between B and D;

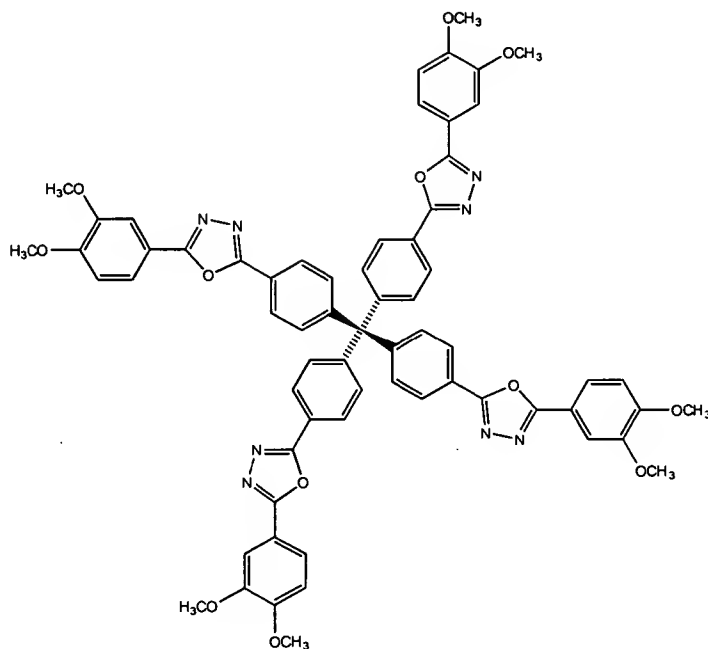
further provided that when A is  $N(R^9)$  and  $R^9$  is H, alkyl, or aryl, then B is C, D is  $C(R^{11})$ , and the floating double bond is between B and D;

further provided that when A is O or S and D is  $C(R^{11})$ , then B is C and the floating double bond is between B and D.

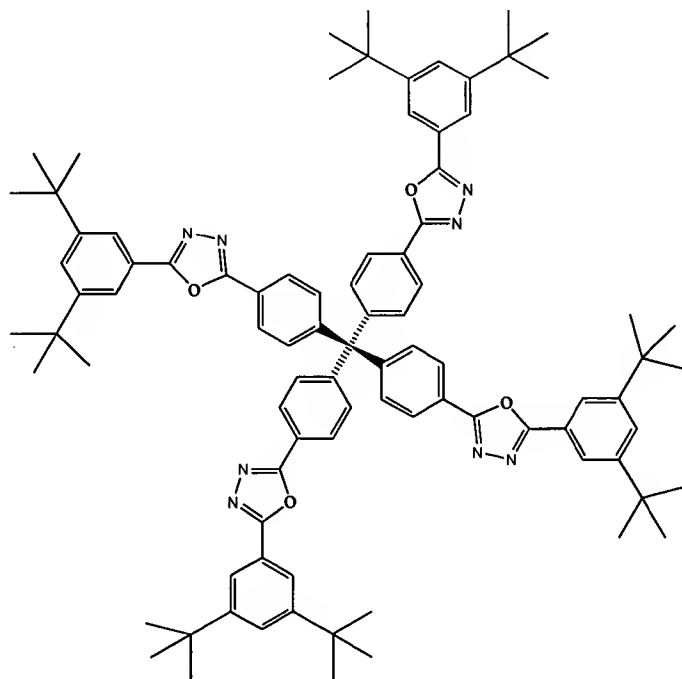
16. (Original) The device of claim 15, wherein A is O, B is C, and D is N.

17. (Original) The device of claim 16, wherein each of  $R^1$ - $R^4$  is H.

18. (Original) The device of claim 15, wherein the compound has the following formula:

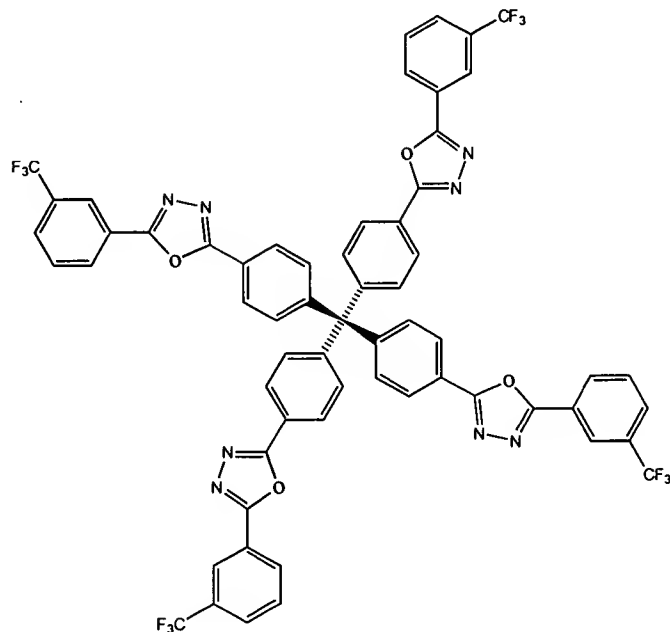


19. (Original) The device of claim 15, wherein the compound has the following formula:





20. (Original) The device of claim 15, wherein the compound has the following formula:



21. (Original) The device of claim 14, wherein the compound has the following formula:

